

**WHAT IS CLAIMED IS:**

1. A shaping drum for tire carcasses, comprising:

a barrel having a central axis;

two axially spaced bead-holding systems carried by the barrel for holding respective ones of the beads of a tire carcass to be shaped;

a plurality of plates carried by the barrel, said plates being arranged circumferentially around said central axis and having radially outer surfaces defining a receiving surface for the tire carcass;

a clevis articulated to the radially inner side of each plate for pivotal movement of said each plate about an axis parallel to said central axis;

means coupled between said barrel and said clevises for displacement of said plates between a retracted position and an expanded position of the drum; and

guide means on the radially inner side of each plate for coacting with the guide means of a circumferentially adjacent plate for positioning the radially outer surface of each plate at the same radial distance from said central axis in the expanded position of the drum and for permitting tilting of each plate about the pivotal axis of the clevis coupled thereto such that the plates are circumferentially superimposed at least in part in the retracted position of the drum.

2. A shaping drum according to claim 1, wherein the displacement means comprises for each plate two arms articulated between the clevis for said each plate and a first crown which is axially displaceable on the barrel and a counter arm articulated between one of said arms and a second crown which is axially fixed relative to the barrel.

3. A shaping drum according to claim 1, wherein the guide means for each plate comprises a cam carried by the inner surface of said each plate and a guide roller for cooperating with the cam of the circumferentially adjacent plate
4. A shaping drum according to claim 3, wherein the cam of each plate extends circumferentially and opens at each of its circumferential ends into a recess for receiving the guide roller of the guide means of the adjacent plate, the two cam recesses of each plate corresponding respectively to the expanded and retracted positions of the drum.
5. A shaping drum according to claim 1, further comprising an adjustment device for permitting adjustment on the order of a few millimeters of the final diameter of expansion of the drum.
6. A shaping drum according claim 5, wherein the adjustment device comprises the guide-roller-receiving recess that corresponds to the expanded position of the drum, said recess being extended circumferentially such that its length permits different stable positioning operations of the guide roller of the adjacent plate.
7. A shaping drum according to claim 1, wherein an elastic sleeve is provided around the outer circumference of said plates to ensure the contact between the cam, the cam recesses of a plate and the guide roller of the circumferentially adjacent plate.